# *FY 1999 Technology Deployment in Environmental Management*

# *Engineering Tomorrow's Solutions Today*

**Site Technology Coordination Group / Technology Deployment Center**
**U.S. Department of Energy, Idaho Operations Office**

# Utilivac Vacuum Excavation System

***Problem:*** *Installing 8-inch-diameter anodes 20 feet below the surface at the INTEC Tank Farm. The soil is typically contaminated and unknown structures or lines could exist.*

***Baseline Technology:*** *Standard large hole excavation methods.*

***Innovative Technology:*** *The Utilivac System is used to dig very small diameter holes. High pressure air is directed through an air lance nozzle to breakup the soil and then a vacuum tube is used to retrieve the soil in a 55-gallon drum.*

***Comparison:*** *The activity was completed in one week as compared to the anticipated two months using standard excavation methods. Significantly smaller amounts of soil was excavated reducing radiological risks and waste generation.*

***Benefits:*** *Estimated cost using standard excavation methods* $237K

*Total cost using the Utilivac System* $30K

*$207K or 87%*

Non-OST

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